

1 35596/JEC/B604

5 SYSTEM AND METHOD FOR INTERNET STREAMING OF  
3D ANIMATED CONTENT

ABSTRACT OF THE DISCLOSURE

10 A system and method facilitating the production, processing,  
and Internet distribution of 3D animated movies including 3D  
multipath movies. A key reduction algorithm reduces the  
keyframes associated with the 3D movie to facilitate the  
streaming of the data over the Internet. An animation  
15 optimization and texture optimization algorithm allows the system  
to get statistical information of the portions of the 3D object  
which are invisible (outside the view frame), and whose animation  
and texture data may thus be safely removed. If the 3D object  
is within the view frame, the optimization algorithm gathers  
20 information about the distance and size of the 3D object and its  
associated texture data within the frame. The system and method  
further allows creation of various versions of the 3D object from  
a single production process. The various versions are tagged  
with an identifier identifying the target platforms and media  
25 platforms in which they are suitable for display. During  
playback, the correct version of the 3D object is selected for  
display based on the detected Internet bandwidth and/or CPU  
speed. To stream the 3D animation content over the Internet for  
real-time playback, the present system and method allows the data  
30 to be divided into an upfront file and various stream files. The  
upfront file is downloaded prior to the playback of the movie.  
The stream files are streamed over the Internet and made  
available to the 3D engine in time for their use.

35 JEC PAS224582.1--12/23/99 1:34 PM